

Remarks

The Official Action dated July 12, 2005 has been carefully considered. Applicants appreciate the Examiner's entry and consideration of the prior Amendment, and subsequent withdrawal of several of the rejection bases previously asserted. However, for reasons set forth in detail below, Applicants respectfully submit that the Examiner's continued assertion of a particular combination of references does not fairly teach or suggest all of the limitations of the present claims. Hence, Applicants submit this Request for Reconsideration of the patentability of claims 3-18 and 30-33.

Claims 3-18 and 30-33 remain pending and subject to examination. Reconsideration is respectfully requested.

35 U.S.C. § 103(a)

Claims 3-5, 11, 15-18 and 30-33 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,714,137 to Trinh et al. (Trinh), in view of U.S. Patent No. 5,676,163 to Behan et al. (Behan), and U.S. Patent 5,861,371 to Wilsch-Irrgang et al. (W-I). Specifically, the Examiner asserts that Trinh discloses aqueous, odor absorbing compositions for use on inanimate surfaces, the compositions comprising about 0.1% to about 5% by weight of solubilized, uncomplexed cyclodextrin (CD) and essentially free of any material which would stain or soil fabric, with a pH greater than about 3. The Examiner further asserts that suitable CD are disclosed, and that "cavities should remain uncomplexed," stating that "this can be accomplished through the use of aqueous solvents and appropriate choice

of perfume materials." The Examiner asserts that perfume is present up to about 0.5% and that the reference teaches a preferred embodiment wherein about 75% of the perfume ingredients should have a Clog P of about 3 or smaller, and that anisaldehyde is among the materials taught as "most preferable perfume materials." The Examiner teaches that "materials with a Clog P of this magnitude are relatively hydrophobic, having a thousand-fold preference for octanol over water." The Examiner further asserts that the reference teaches various other claimed limitations as well, but states that the reference does not specifically disclose use of a class I or class II aldehyde in the recited amounts, or use of an odor blocker in the recited amounts.

With respect to the secondary references, the Examiner asserts that Behan teaches that anisaldehyde is a class 1 aldehyde, and W-I teaches that terpenes, including alpha-terpineol, are useful deodorizers in cleaning compositions. The Examiner also asserts that the "odor blockers and class I and class II aldehydes contemplated for use in these compositions are those disclosed in the cited secondary references." The Examiner concludes that the combination would have been obvious because the references teach that "all of the ingredients recited by applicants are suitable for inclusion in an odor absorbing composition. This rejection is traversed and reconsideration is respectfully requested.

Instant independent claim 30 (from which the other rejected claims depend) is directed to an odor-absorbing or neutralizing concentrated composition useable as an additive in one or more steps of a laundry process. The composition comprises: solubilized, uncomplexed cyclodextrin; from about 0.0005 to about 1 weight percent of an effective amount of odor blocker; and *from about 0.01 to about 1 weight percent of an effective amount of class I and/or class II aldehyde*. The composition contains

at least enough cyclodextrin to provide significant reduction in malodor that survives a typical laundry wash, having a pH of more than about 3, and is suitable for use as an additive in pre-treating, washing, and/or rinsing of fabrics. The composition is packaged in association with instructions to use it in at least an effective amount in at least one step in a laundry process to counteract malodors that remain after said laundry process.

The specification discloses that the presently claimed compositions are particularly suited for removing "lingering" malodors caused in large part by hydrophobic soils, from laundry that has already undergone the wash/rinse cycle. In addition, the present inventors emphasize the importance of the present composition being prepared as an additive to a laundry cycle, rather than a component of the detergent or a fabric softener, since these latter two vehicles would expose the CD cavity to perfumes and surfactants which would disable it with respect to odor control, prior to it contacting the laundry.

The primary reference, Trinh, is directed to uncomplexed CD solutions for odor control on an inanimate object, and in one example, the "inanimate object" is disclosed in the specification as a fabric. However, Trinh fails to disclose such compositions comprising an effective amount of a class I or II aldehyde, and, in particular, fails to disclose the required aldehydes in the range instantly recited. Trinh further teaches that the amount of CD in the composition, by weight, should exceed the amount of the perfume ingredient by weight in ratios of 8:1, to 70:1 (column 11, lines 45-65). In addition, the Trinh anisaldehyde is disclosed merely as a component of the perfume ingredient, resulting in even higher ratios once this is taken into consideration. Trinh fails to disclose a class I or class II aldehyde ingredient in an

amount effective for the purposes of the instant inventive compositions, as defined by instant claim 30, and fails to disclose a class I or class II aldehyde ingredient in the range presently recited in claim 1.

The Examiner asserts that Trinh discloses "anisic aldehyde," or anisaldehyde, as a suitable "perfume material." Since the purpose of the anisaldehyde ingredient in the present compositions and the Trinh compositions differ, and the range presently disclosed is significant to the functioning of the present inventive compositions, Applicants maintain that this difference, among others, is patentably distinguishing.

The secondary references do not cure this deficiency. The Examiner relies on Behan for its disclosure that anisaldehyde is a class I aldehyde, and, therefore, allegedly constitutes the required "class I or II aldehyde" component of the present invention. Behan does not disclose compositions per se, but processes and perfumes related to reducing odors in a smoky "headspace." Behan does not address composition ranges or suitability of particular amounts or ratios, and therefore does not overcome the deficiencies of the primary reference.

Furthermore, both Trinh and Behan disclose anisaldehyde merely as a perfume component, and not as a distinct ingredient of the compositions. The present inventors disclose a class I or II aldehyde as an independent ingredient, not necessarily admixed or bonded with perfumes. With respect to the teachings of both references, a class I or II aldehyde is *only* found in compositions in the presence of a perfume, while present independent claim 30 contemplates a class I or II aldehyde ingredient in the absence of a perfume. Applicants submit that this difference also carries patentable weight. Indeed, a requirement that the aldehyde be bound to a perfume molecule would be problematic to the functioning of the present

compositions, in the absence of the specific guidelines for the introduction of perfume molecules, as presently disclosed. According to the present disclosure, the presently recited CD ingredient must be available to complex with malodorous molecules *after* the wash cycle. A perfume ingredient is generally accessible to the CD cavity. In addition, a perfume ingredient that binds all the aldehyde in the composition may functionally remove a substantial portion of the desirable aldehyde from the composition.

While dependent claim 31 recites addition of a perfume ingredient, it precisely sets forth the criterion that such an ingredient would have to have in order for the composition to function as intended.

In a prior Response (see Response Jun. 20, 2005) Applicants noted that Trinh specifically discloses anisaldehyde in amounts of .0004 and .001 in composition Examples IX and X, respectively. The Examiner found this argument unpersuasive, stating that the reference "provides motivation" to "add perfume at ten times the amount exemplified in Example X" and that anisaldehyde may be present in larger amounts than disclosed in the examples. Applicants respectfully disagree, and request that the Examiner provide some basis in Trinh for this assertion. As noted by the Examiner, Trinh is concerned with delivering uncomplexed CDs to a substrate, and the examples disclosed are particularly formulated by selection parameters including CD type, CD type ratios, and particular perfumes, as disclosed, to provide that result. One cannot merely multiply the perfume ingredient in one disclosed composition by a factor of 10 because another composition discloses perfume in that amount, without correspondingly altering the other ingredients in that composition to comport with those selection parameters. Examples IX and X are the only examples disclosed in

Trinh of compositions comprising anisaldehyde in any amount. Despite the contentions of the Examiner, Applicants find no teaching or suggestion in Trinh that the disclosed amount may be multiplied, divided or otherwise manipulated, independently of the other ingredients, and retain the overall functional requirements of the composition. Hence, Trinh fails to disclose compositions comprising a class I or II aldehyde in an amount within the range recited by instant independent claim 30.

The other secondary reference, W-I, is directed to compositions for after-treatment of laundry comprising quaternium ammonium compounds, and, optionally terpene compounds, and does not teach or suggest compositions comprising class I or class II aldehydes, in any range, or as a component of any other ingredient, and, therefore, does not overcome the deficiencies of the other two references with respect to the class I or class II aldehyde ingredient, and effective amounts, or effective ranges thereof.

To establish prima facie obviousness of the claimed invention, all the claim limitations must be taught or suggested by the prior art, *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). Trinh fails to disclose compositions comprising class I or II aldehydes in the instantly required "effective amount" or in the range recited in the sole present independent claim (30). The secondary references, Behan and W-I, fail to cure these deficiencies. Hence, instant independent claim 30 is nonobvious and patently distinguishable over Trinh, in view of Behan and W-I.

Dependent claims are nonobvious under §103 if the independent claims from which they depend are nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ 2d 1596 (Fed. Cir. 1988). Hence, the rejection under 35 U.S.C. § 103 of independent claim 30, and

claims 3-5, 11, 15-18 and 31-33, dependent therefrom, has been overcome.

Reconsideration is respectfully requested.

Claims 3-5, 11, 15-18 and 30-33 are rejected under 35 U.S.C. § 103 as being unpatentable over Trinh, Behan, and W-I, further in view of Japanese Patent No. 10-194,905 (JP). Specifically the Examiner asserts the teachings of the three references as set forth above, and further asserts that Trinh teaches that water soluble antimicrobial preservatives, including low molecular weight aldehydes, may be added at 0.001 to about 0.5% by weight. The Examiner asserts the JP reference for allegedly teaching that anisaldehyde is a low molecular weight aldehyde having antibacterial and antifungal properties such that it would have been obvious to add anisaldehyde at 0.001 to about 0.5% to act as a preservative. This rejection is traversed and reconsideration is respectfully requested.

Instant independent claim 30 is set forth in detail, above.

The teachings of Trinh, Behan, and W-I are also set forth above. Trinh further teaches compositions comprising a solubilized, water-soluble, antimicrobial preservative having a water solubility of greater than about 3%. This requirement is based on the specific species of microbial organisms known to be problematic in CD compositions (column 6, lines 28-39). Further, Trinh discloses that either a broad spectrum preservative or a combination of limited spectrum preservatives must be utilized as the requisite preservative in order to be effective as contemplated (*id.* at 40-48). Specifically, Trinh teaches that the preservatives must be "water soluble and effective at low levels because organic preservatives can form inclusion complexes with the cyclodextrin molecules and compete with the malodorous molecules for the cyclodextrin cavities, thus rendering the cyclodextrins ineffective as odor controlling

actives" (id. at 53-60). Trinh also cautions that many well-known preservatives would be ineffective when used in conjunction with cyclodextrin" (column 7, lines 4-12).

The additional secondary reference, JP, is directed to antifungal, anti-mold and antibacterial formulations that readily vaporize upon application to a substrate (see JP Translation, page 1, paragraphs 4, 5 and 6). JP paragraph 7 lists suitable antimicrobials, all of which are organic, and all of which exhibit the property sought by JP, that is, they are volatile organics. Anisaldehyde, as an aromatic aldehyde, is listed as a suitable preservative for the compositions and purposes of JP.

However, Trinh specifically teaches against preservatives of the nature sought by JP. The Trinh preservatives must be available in the Trinh aqueous solutions of CD in order to inhibit growth of microbes on the particularly vulnerable CD. Hence, the preservatives of JP are mutually exclusive with the preservatives of Trinh. Tellingly, Trinh spends nearly five columns of disclosure detailing the specifications and suitability of various preservatives, including some organics and aldehydes (see columns 6-11). And, Trinh is aware of anisaldehyde, as evidenced by its disclosure of anisaldehyde as a suitable perfume component. However, despite this, Trinh fails to teach or suggest that anisaldehyde may be a suitable preservative. Anisaldehyde simply fails to meet the criterion set forth in Trinh as a suitable preservative with respect to water solubility at storage temperatures. As is well-known in the art, anisaldehyde is aromatic, substantially non-water soluble, and vaporizes readily under ambient conditions.

Hence, the specific preservatives of JP are specifically taught against by Trinh, and cannot be imported into the Trinh compositions in order to render the present inventive compositions obvious.

As noted above, to establish *prima facie* obviousness of the claimed invention, all the claim limitations must be taught or suggested by the prior art, *In re Royka*, 180 U.S.P.Q. at 580. In this case, the Examiner has failed to set forth a legitimate *prima facie* case of obviousness based on this combination of references, because the references themselves teach that they cannot be combined for the common purpose asserted by the Examiner, that is, because each suggests a preservative, because, as Trinh discloses, the preservatives of JP would negatively impact the functioning of the Trinh compositions.

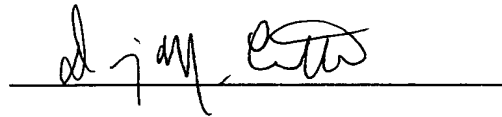
In the alternative, Applicants submit that any assertion by the Examiner of a *prima facie* case of obviousness based on this combination has been effectively rebutted. "An applicant may rebut a *prima-facie* case of obviousness by providing a 'showing of facts supporting the opposite conclusion.' Such as showing dissipates the *prima facie* holding and requires the examiner to 'consider all of the evidence anew.' [citations omitted] Rebuttal evidence may show, for example,that the prior art teaches away from the claimed invention..." *In re Kumar*, 76 USPQ2d 1048, at 1052 (Fed. Cir. 2005). "An applicant may rebut a *prima-facie* case of obviousness by providing a 'showing of facts supporting the opposite conclusion.' Such as showing dissipates the *prima facie* holding and requires the examiner to 'consider all of the evidence anew.' [citations omitted] Rebuttal evidence may show, for example,that the prior art teaches away from the claimed invention..." *In re Kumar*, 76 USPQ2d 1048, at 1052 (Fed. Cir. 2005).

References "teach away" from an invention if they teach or suggest a development that is unlikely to be productive of the result sought." *In re Gurley*, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994). The importation of the preservatives disclosed in JP into the compositions disclosed in Trinh, for the purpose of providing effective antimicrobial action against the microbes disclosed by Trinh to be associated with cyclodextrins, would fail. The preservatives would not solubilize in water to the extent demanded by Trinh in order to be in the vicinity of the CD, and would not remain in the composition during the shelf life of the CD, as desired by Trinh, for the reasons taught by Trinh.

Hence, the rejection of claims 3-5, 11, 15-18 and 30-33 under 35 U.S.C. § 103 over Trinh, in view of Behan and W-I, further in view of JP, has been overcome. Reconsideration is respectfully requested.

It is believed that the above is a complete and comprehensive response to the rejections under 35 U.S.C. § 103 as asserted in the July 12, 2005 Office Action. Reconsideration and an early allowance are therefore respectfully requested.

Respectfully submitted,



Denise M. Everett (Reg. No. 47,552)
DINSMORE & SHOHL LLP
1900 Chemed Center
255 East Fifth Street
Cincinnati, Ohio 45202
(513) 977-8787